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**HOMEBREWING** *with* **ALTITUDE**



# “Recipe Formulation and Creating Poor Richard’s Ale”

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The background of the slide is a photograph of a desk. In the top left corner, there is a silver desk lamp with a glass shade. The desk surface is covered with a white sheet of paper that has some faint, illegible handwriting and a large blue arrow pointing downwards. A blue ruler is placed horizontally across the middle of the desk. A red and white pen lies on the desk in the bottom right corner. The background wall is made of red bricks.

# Presentation Overview

- Section I:
  - Overall Recipe Formulation
- Section II:
  - Creating a New Beer Style: Poor Richard's Ale
- Q&A
- Sampling

# Recipe Formulation

- Favorite Part of Brewing
- My Method:
  - Get it Right 1st Time!
    1. Define a Goal
    2. Research and Compare
    3. Brew, Brew, Brew!
    4. Seek Feedback

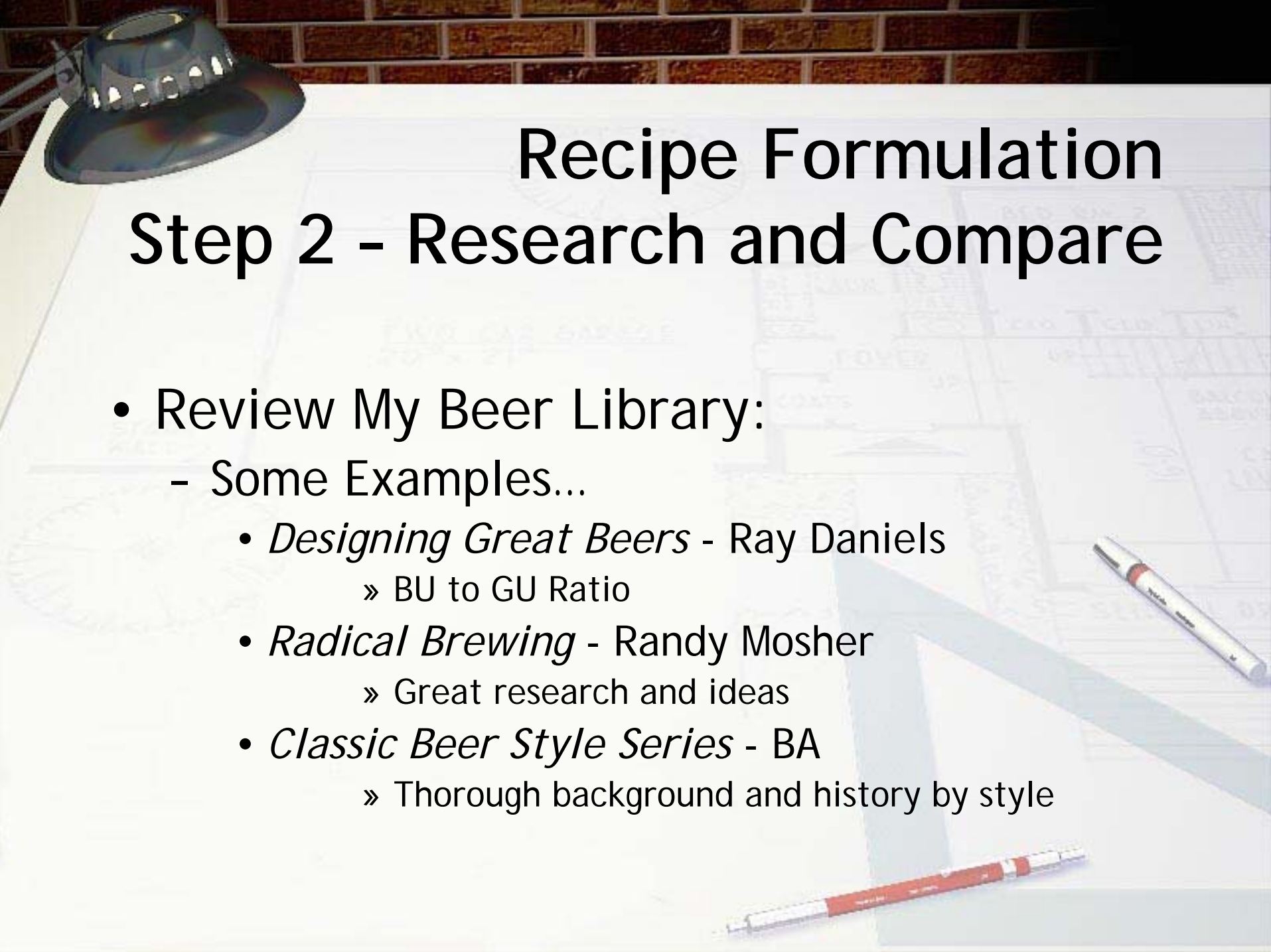


# Recipe Formulation

## Step 1 - Define a Goal

- What Do I Want to Drink?
  - Classic Style
  - New Style
  - Wing It
- What Flavor Profile?
  - Malt
  - Hop Flavor & Bitterness
  - Yeast





# Recipe Formulation

## Step 2 - Research and Compare

- Review My Beer Library:
  - Some Examples...
    - *Designing Great Beers* - Ray Daniels
      - » BU to GU Ratio
    - *Radical Brewing* - Randy Mosher
      - » Great research and ideas
    - *Classic Beer Style Series* - BA
      - » Thorough background and history by style

# Recipe Formulation

## Step 2 - Research and Compare

- Style Guidelines:
  - BJCP vs. BA Guidelines
  - Example:

### Strong Scotch Ale

	OG	IBU	BU/GU	SRM
BJCP	1.070 - 1.130	17-35	.24-.27	14-25
BA	1.072 - 1.085	25-35	.35-.41	12-30

# Recipe Formulation

## Step 2 - Research and Compare

- Savor the Flavor:
  - Grab a Beer
- Try Them All:
  - Classic Examples
  - Non-Traditional
  - Local Variations





# Recipe Formulation

## Step 3 - Brew, Brew, Brew!

- Experiment and Track:
  - Malts (Domestic vs. International)
  - Hops (New Varieties vs. Traditional)
  - Yeast
    - Compare Strains (Attenuation, Flocculation, Flavor)
    - Using Pure O<sup>2</sup> vs. Air
  - Water Profile
  - Temperature Variations
    - Mash
    - Fermentation
  - Measure pH Variations Throughout Process

# Recipe Formulation

## Step 4 - Seek Feedback

- Friends
- Homebrew Club
- Competitions

QuickTime™ and a  
TIFF (Uncompressed) decompressor  
are needed to see this picture.



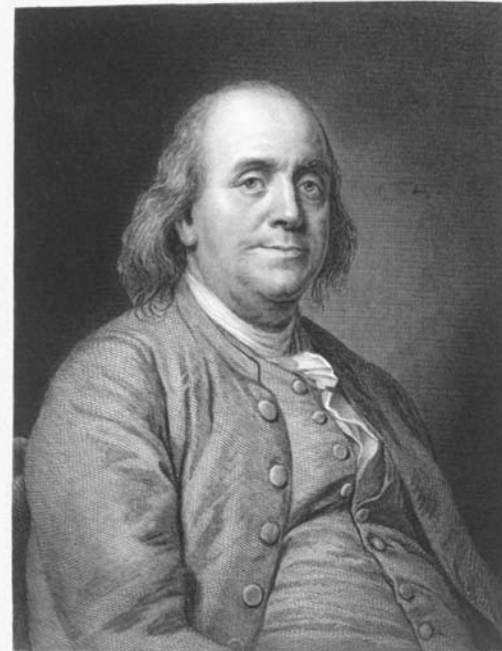
# Creating a New Beer Style - Poor Richard's Ale -

- Franklin's 300th Birthday:
  - Recipe Competition
  - What did Franklin really quaff?
  - Knew Where... But What?
- Opportunity to Create New Style:
  - Challenge: Make It Simple To Brew
- Get into the Era:
  - Learn My History!

# Creating a New Beer Style

## - Poor Richard's Ale -

- Lengthy Bibliography
  - 19 Sources
- Beer of the Day:
  - Old Ale vs. Strong Scotch
- Discounted Styles:
  - Porter
  - Lager
  - Spiced Beers



BENJAMIN FRANKLIN.

*Engraved by W. B. Smith from the original picture in  
Paris, painted from life by Sir Godfrey Kneller and now  
in the possession of the Duke of Devonshire*



# Creating a New Beer Style



## - Poor Richard's Ale -

- Malt - Historical Malting
  - Low vs. High Malt Quality
  - Modern Equivalents
- Rational for Adjuncts & Style
  - Raw Material Shortages
  - Corn and Molasses
  - American Ingredients



# Creating a New Beer Style

## - Poor Richard's Ale -

- Mashing:
    - How to Mash Without a Thermometer!  
*"Bring your water to a boil and put it into the mash tun. When it has cooled enough that the steam has cleared and you can see your reflection in the water, add your malt to the tun."*  
- *London and Country Brewer* (1736 & re-released 2005)
  - Supported by Noonan & Daniels
- 
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# Creating a New Beer Style

## - Poor Richard's Ale -

- Hops:
  - Kent Goldings "Discovered" in 18th Century
  - Not Yet Cultivated in Colonies
- Yeast:
  - Unspecified
  - House Flavors
- Recipe





# Creating a New Beer Style - Poor Richard's Ale -

- OG: 1.068 (Style Range = 1.060 - 1.086)
- FG: 1.018 (Style Range = 1.014 - 1.030)
- IBU: 27 (Style Range = 25 - 35)
- SRM: 17 (Style Range = 12 - 25)
- BU/GU Ratio: 0.39 (Strong Scotch Ale = 0.41)



# Creating a New Beer Style - Poor Richard's Ale -

- Ingredients:
  - 59% Maris Otter Malt ('Low Malt')
  - 19% Flaked Corn
  - 12% Biscuit ('High Malt')
  - 7% Special Roast ('High Malt')
  - 1% Black Patent ('High Malt')
  - 2% Grandma's Molasses (5 minutes to end of boil)
- Mash: 154F for 45 min or until complete conversion



# Creating a New Beer Style

## - Poor Richard's Ale -

- Hops: Kent Goldings
  - 60 min, 45 min, 30 min
- Boil:
  - 90 minutes
- Yeast:
  - English: White Labs 002 or Wyeast 1968
  - Scottish: White Labs 028 or Wyeast 1728





# Creating a New Beer Style - Poor Richard's Ale -

- Results... A Big Success!
  - Announced at GABF
  - Flown to Philadelphia to:
    - Brew, Light Birthday Cake & Attend Event
  - Brewed by:
    - 100+ Commercial Breweries
    - Hundreds of Homebrewers
    - Great Feedback from Around the World



# “Recipe Formulation and Creating Poor Richard’s Ale”

## Q&A

## Sampling!

Thank You & Cheers!